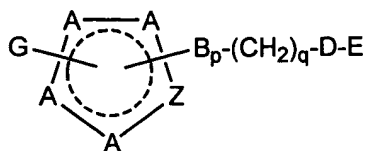


WHAT IS CLAIMED IS:

- 1 1. A compound having the formula:



- 2
3 or a pharmaceutically acceptable salt, ester, or prodrug thereof,
4 wherein

5 A, at each occurrence, independently is carbon, carbonyl, or nitrogen, provided at least
6 one A is carbon;

7 Z is carbon, nitrogen, oxygen, or sulfur;

8 B is selected from the group consisting of O, NR^2 , S(O)_r , C=O, C=S, and C=NOR³,

9 p is 0 or 1;

10 q, at each occurrence, independently is 0 or 1;

11 r is 0, 1, or 2;

12 R^2 , at each occurrence, independently is selected from the group consisting of:

- 13 a) hydrogen, b) $\text{S(O)}_r\text{R}^4$, c) formyl, d) C₁₋₈ alkyl, e) C₂₋₈ alkenyl, f) C₂₋₈ alkynyl,
14 g) C₁₋₈ alkoxy, h) C₁₋₈ alkylthio, i) C₁₋₈ acyl, j) saturated, unsaturated, or aromatic
15 C₃₋₈ carbocycle, and k) saturated, unsaturated, or aromatic 5-10 membered
16 heterocycle containing one or more heteroatoms selected from the group
17 consisting of nitrogen, oxygen, and sulfur,
18 wherein any of d) – k) optionally is substituted with one or more moieties
19 selected from the group consisting of carbonyl, aryl, substituted aryl,
20 heteroaryl, substituted heteroaryl, F, Cl, Br, I, CN, NO₂, -NR³R³, -OR³,
21 -S(O)_rR⁴, -S(O)_rNR³R³, -C(O)R³, -C(O)OR³, -OC(O)R³, -C(O)NR³R³, and
22 -OC(O)NR³R³;

23 alternatively, two R^2 groups, taken together with the atom to which they are bonded, form
24 i) 5-8 membered saturated or unsaturated carbocycle, or ii) 5-8 membered saturated or
25 unsaturated heterocycle containing one or more atoms selected from the group consisting of
26 nitrogen, oxygen, and sulfur,

27 wherein i) – ii) optionally is substituted with one or more moieties selected from
28 the group consisting of carbonyl, F, Cl, Br, I, CN, NO₂, -NR³R³, -OR³, -S(O)_rR⁴,

$-S(O)_rNR^3R^3$, $-C(O)R^3$, $-C(O)OR^3$, $-OC(O)R^3$, $-C(O)NR^3R^3$, $-OC(O)NR^3R^3$,
 C_{1-6} acyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;
 R^3 , at each occurrence, independently is selected from the group consisting of:
a) hydrogen, b) C_{1-8} alkyl, c) C_{2-8} alkenyl, d) C_{2-8} alkynyl, e) C_{1-8} acyl,
f) saturated, unsaturated, or aromatic C_{3-8} carbocycle, and g) saturated,
unsaturated, or aromatic 5-10 membered heterocycle containing one or more
heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,
wherein any of b) – h) optionally is substituted with one or more moieties
selected from the group consisting of carbonyl, F, Cl, Br, I, CN, NO_2 ,
 $-NR^6R^6$, $-OR^6$, $-S(O)_rR^6$, $-S(O)_rNR^6R^6$, $-C(O)R^6$, $-C(O)OR^6$, $-OC(O)R^6$,
 $-C(O)NR^6R^6$, $-OC(O)NR^6R^6$, C_{1-6} acyl, aryl, substituted aryl, heteroaryl,
and substituted heteroaryl;
alternatively, two R^3 groups, taken together with the atom to which they are bonded, form
i) a 5-7 membered saturated or unsaturated carbocycle, or ii) a 5-7 membered saturated or
unsaturated heterocycle containing one or more atoms selected from the group consisting of
nitrogen, oxygen, and sulfur,
wherein i) - ii) optionally is substituted with one or more moieties selected from
the group consisting of carbonyl, F, Cl, Br, I, CN, NO_2 , $-NR^6R^6$, $-OR^6$, $-S(O)_rR^6$,
 $-S(O)_rNR^6R^6$, $-C(O)R^6$, $-C(O)OR^6$, $-OC(O)R^6$, $-C(O)NR^6R^6$, $-OC(O)NR^6R^6$,
 C_{1-6} acyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;
 R^4 is selected from the group consisting of:
a) hydrogen, b) $-NR^3R^3$, c) $-NR^3OR^3$, d) $-NR^3NR^3R^3$ e) $-NHC(O)R^3$,
f) $-C(O)NR^3R^3$, g) $-N_3$, h) C_{1-8} alkyl, i) C_{2-8} alkenyl, j) C_{2-8} alkynyl, k) saturated,
unsaturated, or aromatic C_{3-8} carbocycle, and l) saturated, unsaturated, or aromatic
5-10 membered heterocycle containing one or more heteroatoms selected from the
group consisting of nitrogen, oxygen, and sulfur,
wherein any of h) – l) optionally is substituted with one or more moieties
selected from the group consisting of carbonyl, F, Cl, Br, I, CN, NO_2 ,
 $-NR^3R^3$, $-OR^3$, $-SR^3$, $-S(O)_rR^5$, $-S(O)_rNR^3R^3$, $-C(O)R^3$, $-C(O)OR^3$,
 $-OC(O)R^3$, $-C(O)NR^3R^3$, $-OC(O)NR^3R^3$, C_{1-6} alkyl, C_{1-6} alkenyl,

C₁₋₆ alkynyl, C₁₋₆ acyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

R⁵ is selected from the group consisting of:

a) hydrogen, b) -NR³R³, c) -NR³OR³, d) -NR³NR³R³, e) -NHC(O)R³,
f) -C(O)NR³R³, g) -N₃, h) C₁₋₈ alkyl, i) C₂₋₈ alkenyl, j) C₂₋₈ alkynyl, k) saturated,
unsaturated, or aromatic C₃₋₈ carbocycle, and l) saturated, unsaturated, or aromatic
5-10 membered heterocycle containing one or more heteroatoms selected from the
group consisting of nitrogen, oxygen, and sulfur,

wherein any of h) – l) optionally is substituted with one or more moieties
selected from the group consisting of F, Cl, Br, I, CN, NO₂, -NR³R³, -OR³,
-SR³-C(O)R³, -C(O)OR³, -OC(O)R³, -C(O)NR³R³, -OC(O)NR³R³,
C₁₋₆ alkyl, C₁₋₆ alkenyl, C₁₋₆ alkynyl, C₁₋₆ acyl, aryl, substituted aryl,
heteroaryl, and substituted heteroaryl;

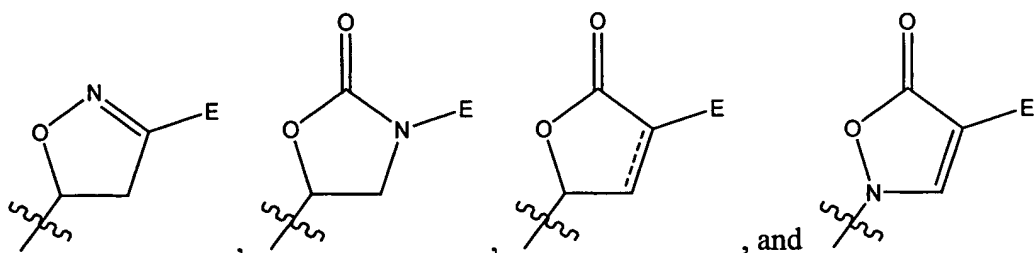
R⁶, at each occurrence, independently is selected from the group consisting of:

hydrogen, C₁₋₆ alkyl, C₁₋₆ alkenyl, C₁₋₆ alkynyl, C₁₋₆ acyl, aryl, substituted aryl,
heteroaryl, substituted heteroaryl;

alternatively, two R⁶ groups taken together are -(CH₂)_s-,

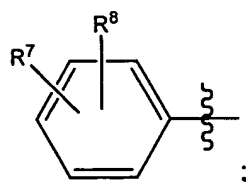
wherein s is 1, 2, 3, 4, or 5;

D-E is selected from the group consisting of:

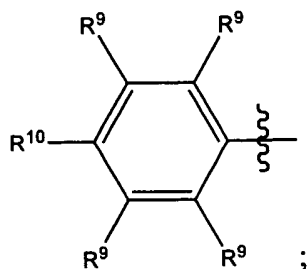


E is selected from the group consisting of:

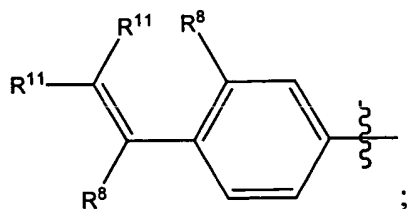
a)



b)



c)



d) 5-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally substituted with one or more R^{13} groups;

e) C_{5-10} saturated, unsaturated, or aromatic carbocycle, optionally substituted with one or more R^{13} groups;

f) C_{1-8} alkyl,

g) C_{2-8} alkenyl,

h) C_{3-8} alkynyl,

i) C_{1-8} alkoxy,

j) C_{1-8} alkylthio,

k) C_{1-8} acyl,

l) $S(O)_r R^5$; and

m) hydrogen,

wherein any of f) – k) optionally is substituted with

i) one or more R^{13} groups;

ii) 5-6 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally substituted with one or more R^{13} groups; or

iii) C_{5-10} saturated, unsaturated, or aromatic carbocycle, optionally substituted with one or more R^{13} groups;

R⁷ is selected from the group consisting of:

a) hydrogen, b) carbonyl, c) formyl, d) F, e) Cl, f) Br, g) I, h) CN, i) NO₂, j) OR³,
k) -S(O)_rR⁵, l) -S(O)_iN=R², m) -C(O)R², n) -C(O)OR³, o) -OC(O)R²,
p) -C(O)NR²R², q) -OC(O)NR²R², r) -C(=NR¹²)R², s) -C(R²)(R²)OR³,
t) -C(R²)(R²)OC(O)R², u) -C(R²)(OR³)(CH₂)_rNR²R², v) -NR²R², w) -NR²OR³,
x) -N(R²)C(O)R², y) -N(R²)C(O)OR³, z) -N(R²)C(O)NR²R², aa) -N(R²)S(O)_rR⁵,
bb) -C(OR⁶)(OR⁶)R², cc) -C(R²)(R³)NR²R², dd) -C(R²)(R³)NR²R¹², ee) =NR¹²,
ff) -C(S)NR²R², gg) -N(R²)C(S)R², hh) -OC(S)NR²R², ii) -N(R²)C(S)OR³,
jj) -N(R²)C(S)NR²R², kk) -SC(O)R², ll) C₁₋₈ alkyl, mm) C₂₋₈ alkenyl,
nn) C₂₋₈ alkynyl, oo) C₁₋₈ alkoxy, pp) C₁₋₈ alkylthio, qq) C₁₋₈ acyl, rr) saturated,
unsaturated, or aromatic C₅₋₁₀ carbocycle, and ss) saturated, unsaturated, or
aromatic 5-10 membered heterocycle containing one or more heteroatoms
selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of ll) – ss) optionally is substituted with one or more moieties
selected from the group consisting of:

carbonyl; formyl; F; Cl; Br; I; CN; NO₂; OR³; -S(O)_rR⁵; -S(O)_iN=R²,
-C(O)R²; -C(O)OR³; -OC(O)R²; -C(O)NR²R²; -OC(O)NR²R²;
-C(=NR¹⁰)R²; -C(R²)(R²)OR³; -C(R²)(R²)OC(O)R²;
-C(R²)(OR³)(CH₂)_rNR²R²; -NR²R²; -NR²OR³; -NR²C(O)R²;
-NR²C(O)OR³; -NR²C(O)NR²R²; -NR²S(O)_rR⁵; -C(OR⁶)(OR⁶)R²;
-C(R²)(R³)NR²R²; -C(R²)(R³)NR²R¹²; =NR¹²; -C(S)NR²R²; -NR²C(S)R²;
-OC(S)NR²R²; -NR²C(S)OR³; -NR²C(S)NR²R²; -SC(O)R²; C₂₋₅ alkenyl;
C₂₋₅ alkynyl; C₁₋₈ alkoxy; C₁₋₈ alkylthio; C₁₋₈ acyl; saturated, unsaturated,
or aromatic C₅₋₁₀ carbocycle, optionally substituted with one or more R⁸
groups; and saturated, unsaturated, or aromatic 5-10 membered
heterocycle containing one or more heteroatoms selected from the group
consisting of nitrogen, oxygen, and sulfur, and optionally substituted with
one or more R⁸ groups;

R⁸ is selected from the group consisting of:

hydrogen; F; Cl; Br; I; CN; NO₂; OR⁶; aryl; substituted aryl; heteroaryl;
substituted heteroaryl; and C₁₋₆ alkyl, optionally substituted with one or more

moieties selected from the group consisting of aryl, substituted aryl, heteroaryl,
 substituted heteroaryl, F, Cl, Br, I, CN, NO₂, and OR⁶;
 alternatively, R⁷ and R⁸ taken together are -O(CH₂)_rO-;
 R⁹, at each occurrence, independently is selected from the group consisting of:
 hydrogen, F, Cl, Br, I, CN, OR³, NO₂, -NR²R², C₁₋₆ alkyl, C₁₋₆ acyl, and
 C₁₋₆ alkoxy;
 R¹⁰ is selected from the group consisting of:
 a) saturated, unsaturated, or aromatic C₅₋₁₀ carbocycle, b) saturated, unsaturated,
 or aromatic 5-10 membered heterocycle containing one or more heteroatoms
 selected from the group consisting of nitrogen, oxygen, and sulfur,
 c) -X-C₁₋₆ alkyl-saturated, unsaturated, or aromatic 5-10 membered heterocycle
 containing one or more heteroatoms selected from the group consisting of
 nitrogen, oxygen, and sulfur, d) saturated, unsaturated, or aromatic 10-membered
 bicyclic ring system optionally containing one or more heteroatoms selected from
 the group consisting of nitrogen, oxygen, and sulfur, e) saturated, unsaturated, or
 aromatic 13-membered tricyclic ring system optionally containing one or more
 heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,
 and f) R⁹,
 wherein
 any of a) - e) optionally is substituted with one or more R¹³ groups, and
 X is O or NR³;
 alternatively, R¹⁰ and one R⁹ group, taken together with the atoms to which they are
 bonded, form a 5-7 membered saturated or unsaturated carbocycle, optionally substituted with
 one or more R¹³ groups; or a 5-7 membered saturated or unsaturated heterocycle containing one
 or more atoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally
 substituted with one or more R¹³ groups;
 R¹¹ at each occurrence, independently is selected from the group consisting of:
 hydrogen; an electron-withdrawing group; aryl; substituted aryl; heteroaryl;
 substituted heteroaryl; and C₁₋₆ alkyl, optionally substituted with F, Cl, or Br;
 alternatively, any R¹¹ and R⁸, taken together with the atoms to which they are bonded,
 form a 5-7 membered saturated or unsaturated carbocycle, optionally substituted with one or

more R¹³ groups; or a 5-7 membered saturated or unsaturated heterocycle containing one or more atoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally substituted with one or more R¹³ groups;

R¹² is selected from the group consisting of:

-NR²R², -OR³, -OC(O)R², -OC(O)OR³, -NR²C(O)R², -NR²C(O)NR²R²,
-NR²C(S)NR²R², and -NR²C(=NR²)NR²R²;

R¹³, at each occurrence, independently is selected from the group consisting of:

a) hydrogen, b) carbonyl, c) formyl d) F, e) Cl, f) Br, g) I, h) CN, i) NO₂, j) OR³,
k) -S(O)_rR⁵, l) -S(O)_rN=R³, m) -C(O)R², n) -C(O)OR³, o) -OC(O)R²,
p) -C(O)NR²R², q) -OC(O)NR²R², r) -C(=NR¹²)R², s) -C(R²)(R²)OR³,
t) -C(R²)(R²)OC(O)R², u) -C(R²)(OR³)(CH₂)_rNR²R², v) -NR²R², w) -NR²OR³,
x) -N(R²)C(O)R², y) -N(R²)C(O)OR³, z) -N(R²)C(O)NR²R², aa) -N(R²)S(O)_rR⁵,
bb) -C(OR⁶)(OR⁶)R², cc) -C(R²)(R³)NR²R², dd) -C(R²)(R³)NR²R¹², ee) =NR¹²,
ff) -C(S)NR²R², gg) -N(R²)C(S)R², hh) -OC(S)NR²R², ii) -N(R²)C(S)OR³,
jj) -N(R²)C(S)NR²R², kk) -SC(O)R², ll) C₁₋₈ alkyl, mm) C₂₋₈ alkenyl,
nn) C₂₋₈ alkynyl, oo) C₁₋₈ alkoxy, pp) C₁₋₈ alkylthio, qq) C₁₋₈ acyl, rr) saturated,
unsaturated, or aromatic C₅₋₁₀ carbocycle, ss) saturated, unsaturated, or aromatic
5-10 membered heterocycle containing one or more heteroatoms selected from the
group consisting of nitrogen, oxygen, and sulfur, tt) saturated, unsaturated, or
aromatic 10-membered bicyclic ring system optionally containing one or more
heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,
and uu) saturated, unsaturated, or aromatic 13-membered tricyclic ring system
optionally containing one or more heteroatoms selected from the group consisting
of nitrogen, oxygen, and sulfur,

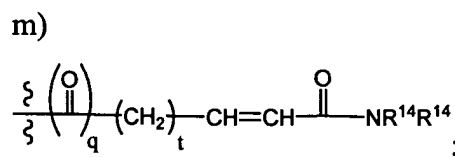
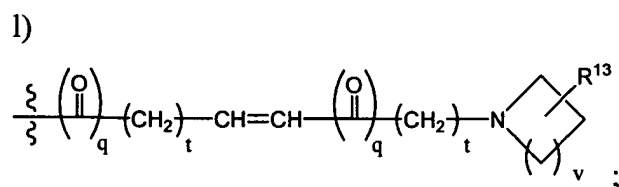
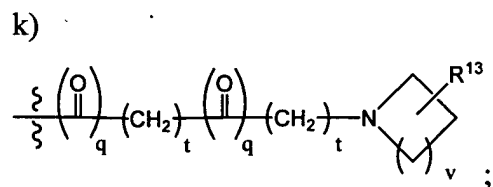
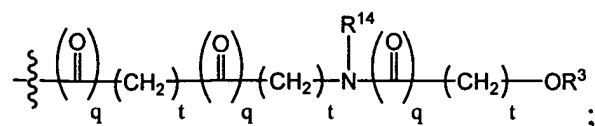
wherein any of ll) – uu) optionally is substituted with one or more
moieties selected from the group consisting of:

carbonyl; formyl; F; Cl; Br; I; CN; NO₂; OR³; -S(O)_rR⁵;
-S(O)_rN=R², -C(O)R²; -C(O)OR³; -OC(O)R²; -C(O)NR²R²;
-OC(O)NR²R²; -C(=NR¹²)R²; -C(R²)(R²)OR³;
-C(R²)(R²)OC(O)R²; -C(R²)(OR³)(CH₂)_rNR²R²; -NR²R²;
-NR²OR³; -NR²C(O)R²; -NR²C(O)OR³; -NR²C(O)NR²R²;

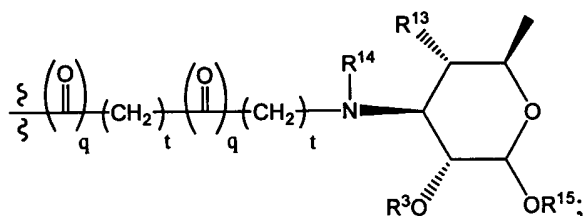
$-\text{NR}^2\text{S}(\text{O})_r\text{R}^5$; $-\text{C}(\text{OR}^6)(\text{OR}^6)\text{R}^2$; $-\text{C}(\text{R}^2)(\text{R}^3)\text{NR}^2\text{R}^2$;
 $-\text{C}(\text{R}^2)(\text{R}^3)\text{NR}^2\text{R}^{12}$; $=\text{NR}^{12}$; $-\text{C}(\text{S})\text{NR}^2\text{R}^2$; $-\text{NR}^2\text{C}(\text{S})\text{R}^2$;
 $-\text{OC}(\text{S})\text{NR}^2\text{R}^2$; $-\text{NR}^2\text{C}(\text{S})\text{OR}^3$; $-\text{NR}^2\text{C}(\text{S})\text{NR}^2\text{R}^2$; $-\text{SC}(\text{O})\text{R}^2$;
 C_{1-8} alkyl, C_{2-8} alkenyl; C_{2-8} alkynyl; C_{1-8} alkoxy; C_{1-8} alkylthio;
 C_{1-8} acyl; saturated, unsaturated, or aromatic C_{3-10} carbocycle
optionally substituted with one or more R^7 groups; and saturated,
unsaturated, or aromatic 3-10 membered heterocycle containing
one or more heteroatoms selected from the group consisting of
nitrogen, oxygen, and sulfur, and substituted with one or more R^7
groups;

G is selected from the group consisting of:

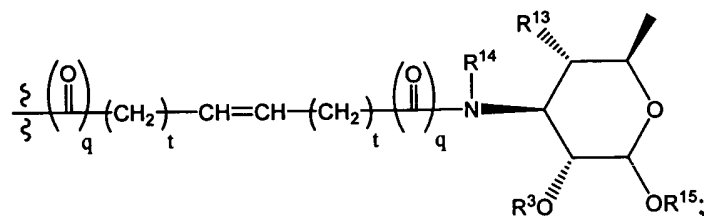
- a) C_{1-4} alkyl, b) C_{5-8} alkyl, c) C_{2-8} alkenyl, d) C_{2-8} alkynyl, e) C_{1-8} alkoxy,
f) C_{1-8} alkylthio, g) C_{1-8} acyl, h) saturated, unsaturated, or aromatic C_{5-10}
carbocycle, i) saturated, unsaturated, or aromatic 5-10 membered heterocycle
containing one or more heteroatoms selected from the group consisting of
nitrogen, oxygen, and sulfur,
j)



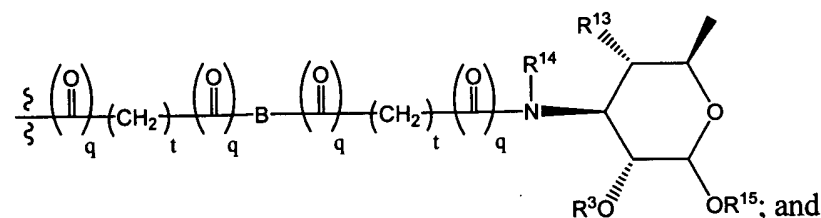
n)



o)



p)



q) $-(\text{CH}_2)_t\text{NR}^2-(\text{CH}_2)_t\text{C}(\text{R}^3)(\text{R}^3)\text{OR}^3$;

wherein

i) a) is substituted with, and

ii) any of b) – i) optionally is substituted with one or more moieties selected from the group consisting of:

carbonyl; formyl; F; Cl; Br; I; CN; NO₂; OR³; -S(O)_rR⁵;
 -S(O)_rN=R²; -C(O)R²; -C(O)OR³; -OC(O)R²; -C(O)NR²R²;
 -OC(O)NR²R²; -C(=NR¹²)R²; -C(R²)(R²)OR³;
 -C(R²)(R²)OC(O)R²; -C(R²)(OR³)(CH₂)_tNR²R²; -NR²R²;
 -NR²OR³; -NR²C(O)R²; -NR²C(O)OR³; -NR²C(O)NR²R²;
 -NR²S(O)_rR⁵; -C(OR⁶)(OR⁶)R²; -C(R²)(R³)NR²R²;
 -C(R²)(R³)NR²R¹²; =NR¹²; -C(S)NR²R²; -NR²C(S)R²;
 -OC(S)NR²R²; -NR²C(S)OR³; -NR²C(S)NR²R²; -SC(O)R²;
 C₂₋₅ alkenyl; C₂₋₅ alkynyl; C₁₋₈ alkoxy; C₁₋₈ alkylthio; C₁₋₈ acyl;
 saturated, unsaturated, or aromatic C₅₋₁₀ carbocycle, optionally
 substituted with one or more R¹³ groups; and saturated,

unsaturated, or aromatic 5-10 membered heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally substituted with one or more R^{13} groups;

t, at each occurrence, independently is 0, 1, 2, or 3;

v is 0, 1, 2, 3, 4, 5, or 6;

R^{14} is selected from the group consisting of:

- a) hydrogen, b) C_{1-6} -alkyl, c) C_{2-6} alkenyl, d) C_{2-6} alkynyl, e) $-C(O)-R^3$,
f) $-C(O)-C_{1-6}$ alkyl- R^3 , g) $-C(O)-C_{2-6}$ alkenyl- R^3 , h) $-C(O)-C_{2-6}$ alkynyl- R^3 ,
i) $-C_{1-6}$ alkyl-J- R^3 , j) $-C_{2-6}$ alkenyl-J- R^3 ; and k) $-C_{2-6}$ alkynyl-J- R^3 ;

wherein

- (i) any of b) – d) optionally is substituted with one or more substituents selected from the group consisting of:

F, Cl, Br, I, aryl, substituted aryl, heteroaryl, substituted heteroaryl, $-OR^3$, $-O-C_{1-6}$ alkyl- R^2 , $-O-C_{2-6}$ alkenyl- R^2 , $-O-C_{2-6}$ alkynyl- R^2 , and $-NR^2R^2$; and

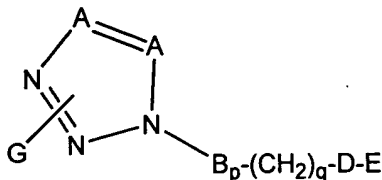
- (ii) J is selected from the group consisting of:

$-OC(O)-$, $-OC(O)O-$, $-OC(O)NR^2-$, $-C(O)NR^2-$, $-NR^2C(O)-$, $-NR^2C(O)O-$, $-NR^2C(O)NR^2-$, $-NR^2C(NH)NR^2-$, and $S(O)_r$; and

R^{15} is selected from the group consisting of:

hydrogen; C_{1-10} alkyl, optionally substituted with one or more R^{13} groups;
 C_{1-6} acyl, optionally substituted with one or more R^{13} groups; aryl; substituted aryl; heteroaryl; substituted heteroaryl; arylalkyl; substituted arylalkyl; and a macrolide.

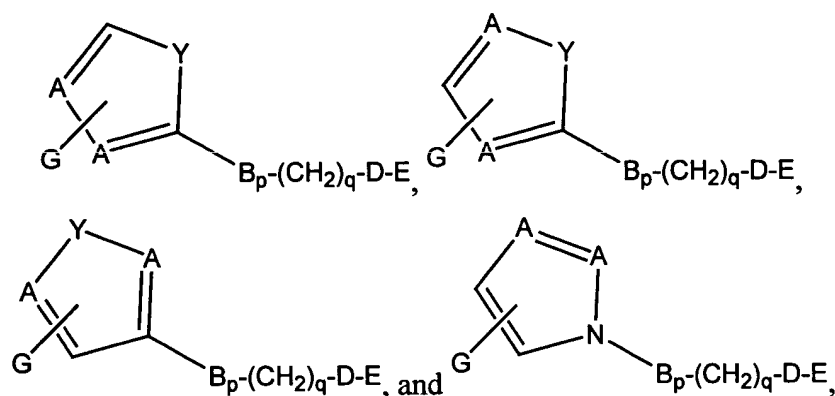
2. The compound according to claim 1, having the formula:



wherein

A, at each occurrence, independently is carbon or nitrogen, provided at least one A is carbon, and
p, q, B, D, E, and G are as defined in claim 1.

3. The compound according to claim 1, having the formula selected from the group consisting of:



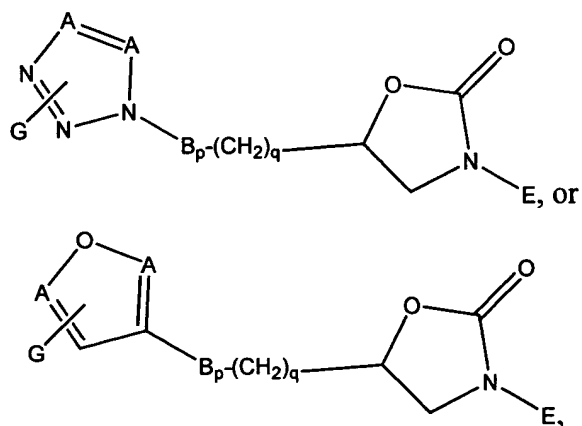
wherein

Y is oxygen or sulfur,

A, at each occurrence, independently is carbon or nitrogen, and

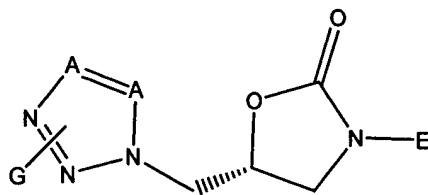
p, q, B, D, E, and G are as defined in claim 1.

4. The compound according to claim 1, having the formula:



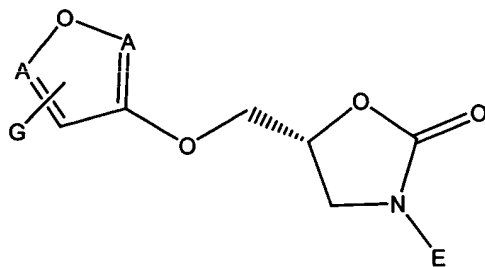
wherein p, q, A, B, E, and G are as defined in claim 1.

5. The compound according to claim 4, having the formula:



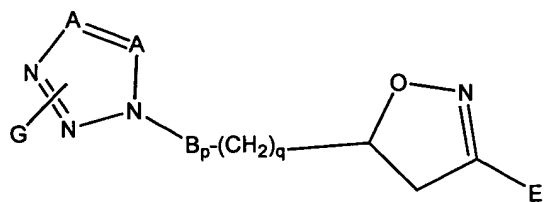
wherein A, E, and G are as defined in claim 1.

6. The compound according to claim 4, having the formula:

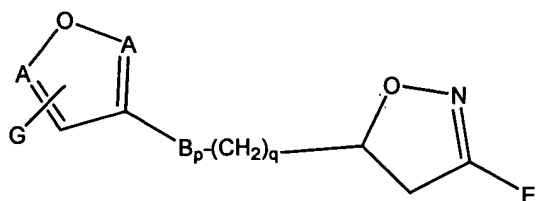


wherein A, E, and G are as defined in claim 1.

7. The compound according to claim 1, having the formula:

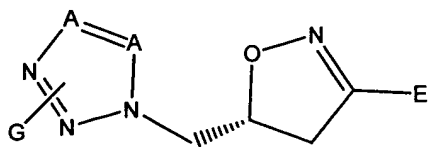


or



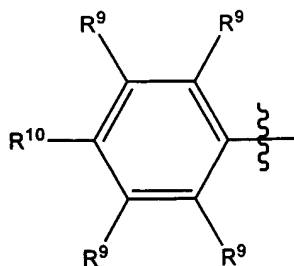
wherein p, q, A, E, and G are as defined in claim 1.

8. The compound according to claim 7, having the formula:



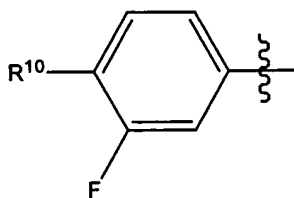
wherein A, E, and G are as defined in claim 1.

1 9. The compound according to claim 1, wherein E has the formula:



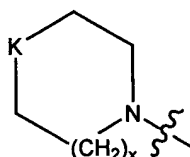
2
3 wherein R^9 and R^{10} , at each occurrence, are as defined in claim 1.

1 10. The compound according to claim 1, wherein E has the formula:



2
3 wherein R^{10} is as defined in claim 1.

1 11. The compound according to claim 9, wherein R^{10} has the formula:



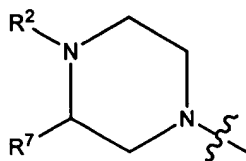
2
3 wherein
4 K is selected from the group consisting of O, NR^2 , and $S(O)_r$, and
5 x is 0, 1, 2, or 3.

1 12. The compound according to claim 11, wherein K is oxygen.

1 13. The compound according to claim 11, wherein t is 1.

1 14. The compound according to claim 9, wherein R^{10} is $-C(O)CH_3$.

1 15. The compound according to claim 9, wherein R^{10} has the formula:

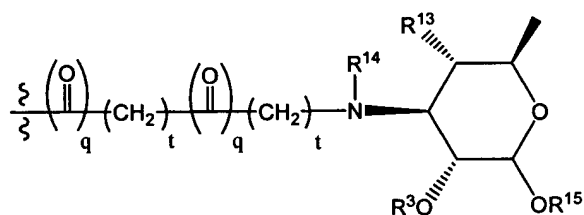


wherein R^2 and R^7 are as defined in claim 1.

16. The compound according to claim 15, wherein R^2 is $-\text{C}(\text{O})-\text{CH}_2-\text{OH}$.

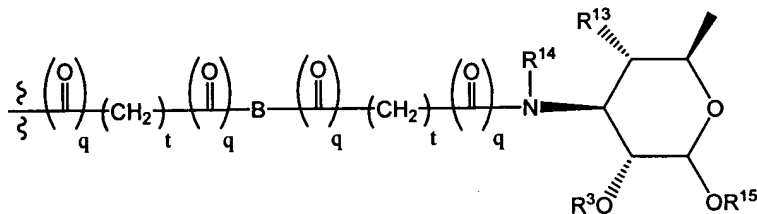
17. The compound according to claim 15, wherein R^7 is hydrogen.

18. The compound according to claim 1, wherein G has the formula:



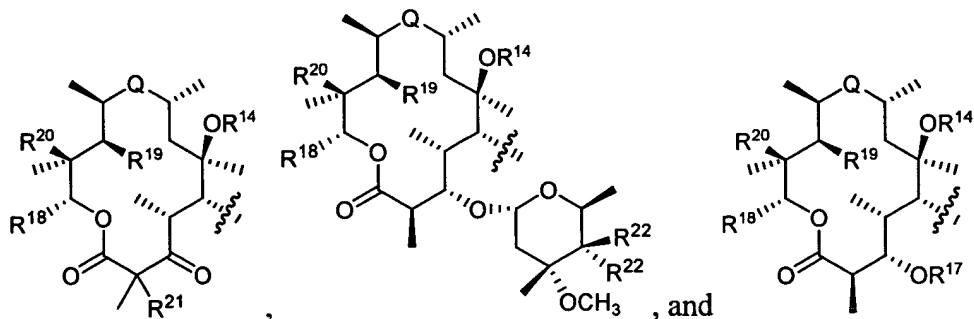
and R^{15} is a macrolide.

19. The compound according to claim 1, wherein G has the formula:



and R^{15} is a macrolide.

20. The compound according to claim 1, wherein R^{15} is selected from the group consisting of:



and pharmaceutically acceptable salts, esters and prodrugs thereof, wherein

R^{17} is selected from the group consisting of:

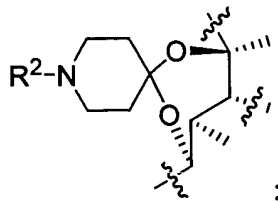
hydrogen, hydroxy protecting group, R^3 , and $-V-W-R^{13}$,

wherein

V is $-C(O)$, $-C(O)O-$, $-C(O)NR^2-$, or absent, and

W is C_{1-6} alkyl, or absent;

alternatively R^{17} and R^{14} , taken together with the atoms to which they are bonded, form:



Q is selected from the group consisting of:

$-NR^2CH_2-$, $-CH_2-NR^2-$, $-C(O)-$, $-C(=NR^2)-$, $-C(=NOR^3)-$, $-C(=N-NR^2R^2)-$,
 $-CH(OR^3)-$, and $-CH(NR^2R^2)-$;

R^{18} is selected from the group consisting of:

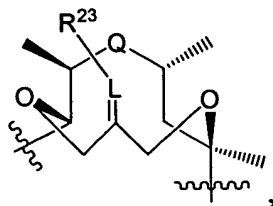
i) C_{1-6} alkyl, ii) C_{2-6} alkenyl, and iii) C_{2-6} alkynyl;

wherein any of i) – iii) optionally is substituted with one or more moieties
selected from the group consisting of $-OR^3$, aryl, substituted aryl,
heteroaryl, and substituted heteroaryl;

R^{19} is selected from the group consisting of:

a) $-OR^{17}$, b) C_{1-6} alkyl, c) C_{2-6} alkenyl, d) C_{2-6} alkynyl, e) $-NR^2R^2$, f) $-C(O)R^3$,
g) $-C(O)-C_{1-6}$ alkyl- R^{13} , h) $-C(O)-C_{2-6}$ alkenyl- R^{13} , and i) $-C(O)-C_{2-6}$ alkynyl- R^{13} ,
wherein any of b) - d) optionally is substituted with one or more R^{13}
groups;

alternatively, R^{14} and R^{19} , taken together with the atoms to which they are bonded, form:



wherein

L is CH or N, and

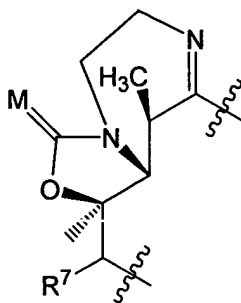
R^{23} is $-OR^3$, or R^3 ;

R²⁰ is -OR¹⁷;

alternatively, R¹⁹ and R²⁰, taken together with the atoms to which they are bonded, form a 5-membered ring by attachment to each other through a linker selected from the group consisting of:

-OC(R²)(R²)O-, -OC(O)O-, -OC(O)NR²-, -NR²C(O)O-, -OC(O)NOR³-,
-N(OR³)C(O)O-, -OC(O)N-NR²R²-, -N(NR²R²)C(O)O-, -OC(O)CHR²-, -CHR²C(O)O-,
-OC(S)O-, -OC(S)NR²-, -NR²C(S)O-, -OC(S)NOR³-, -N(OR³)C(S)O-,
-OC(S)N-NR²R²-, -N(NR²R²)C(S)O-, -OC(S)CHR²-, and -CHR²C(S)O-;

alternatively, Q, R¹⁹, and R²⁰, taken together with the atoms to which they are bonded, form:



wherein

M is O or NR²;

R²¹ is selected from the group consisting of:

hydrogen, F, Cl, Br, and C₁₋₆ alkyl;

R²², at each occurrence, independently is selected from the group consisting of:

hydrogen, -OR³, -O-hydroxy protecting group, -O-C₁₋₆ alkyl-J-R¹³,

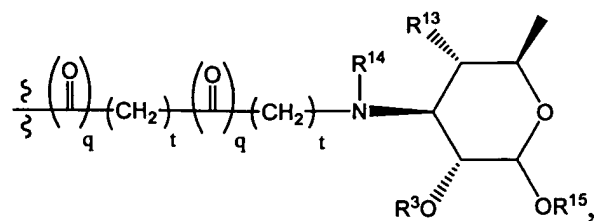
-O-C₂₋₆ alkenyl-J-R¹³, -O-C₁₋₆ alkynyl-J-R¹³, and -NR²R²;

alternatively, two R²² groups taken together are =O, =N-OR³, or =N-NR²R²; and

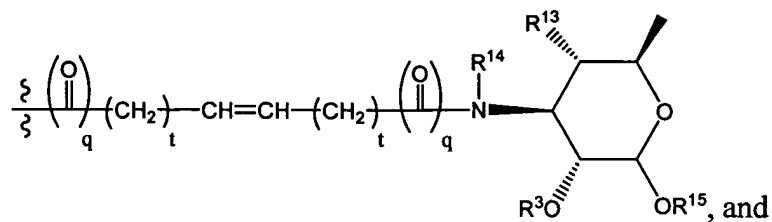
R², R³, R¹³, R¹⁴, and J are as described in claim 1.

21. The compound according to claim 1, wherein G has the formula selected from the group consisting of:

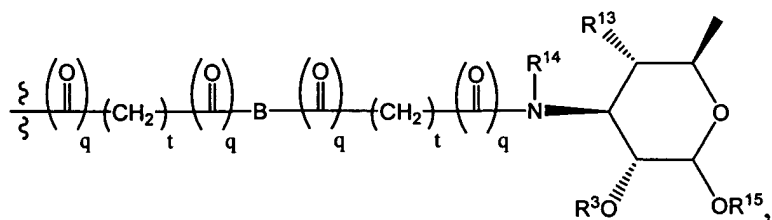
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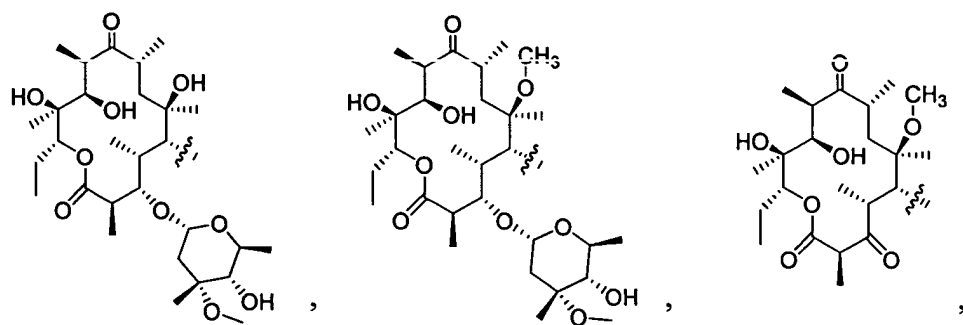
4



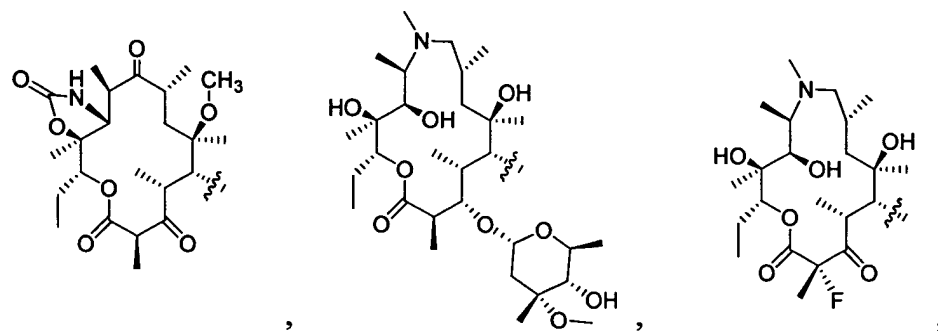
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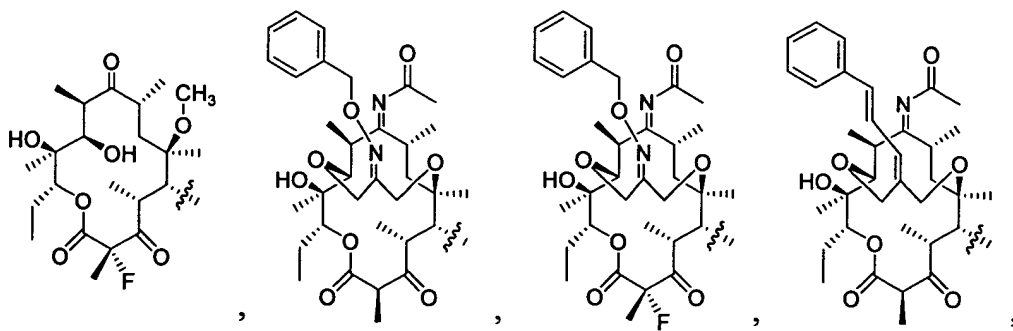
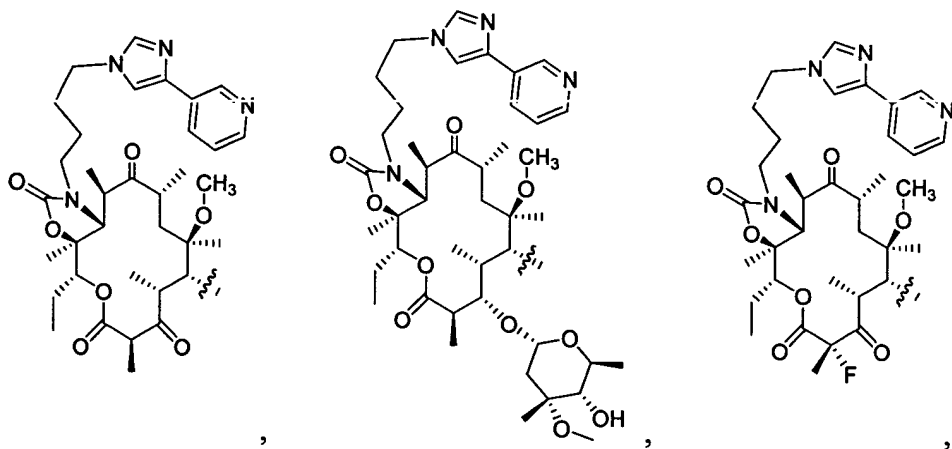
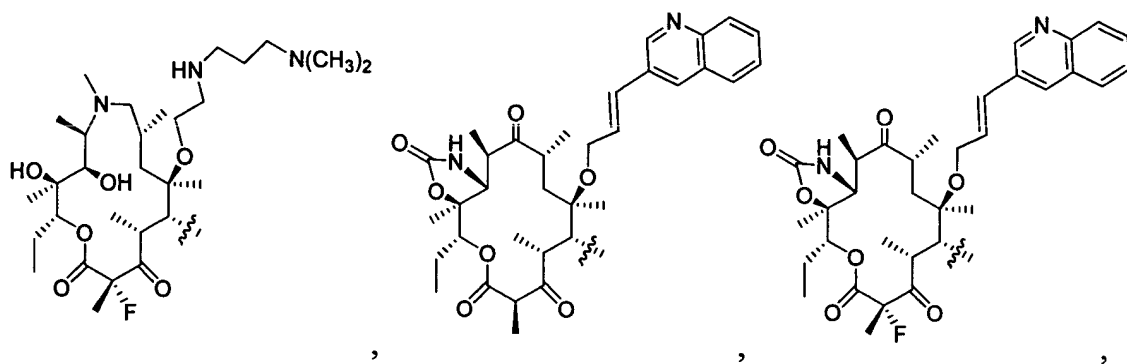
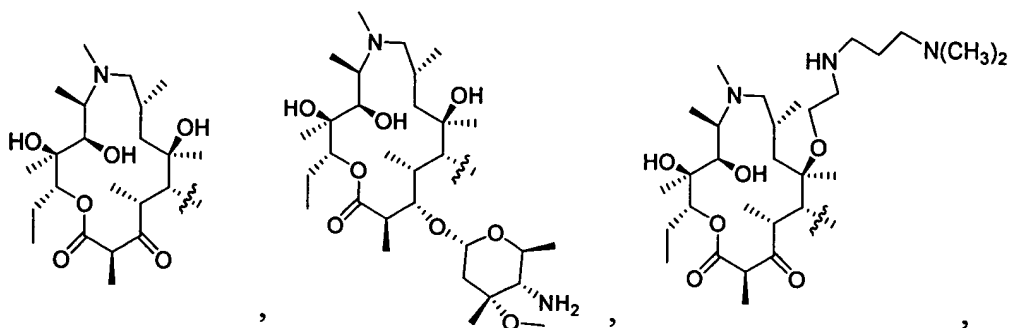
6 and R¹⁵ has the formula selected from the group consisting of:

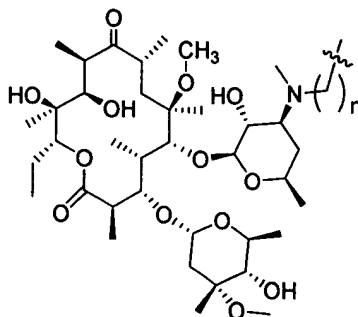
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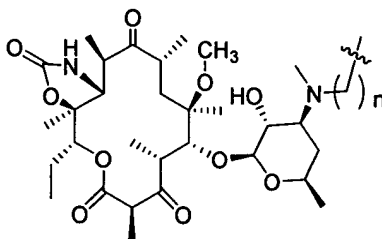






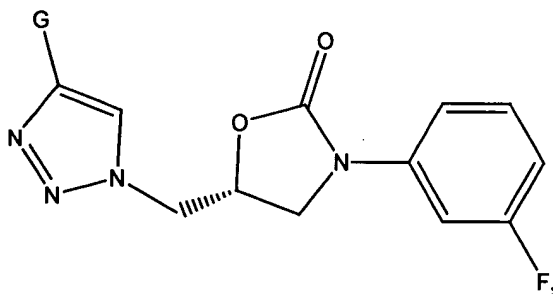
wherein $n = 1, 2, 3$, or 4 .

25. The compound according to claim 1, wherein G has the formula:



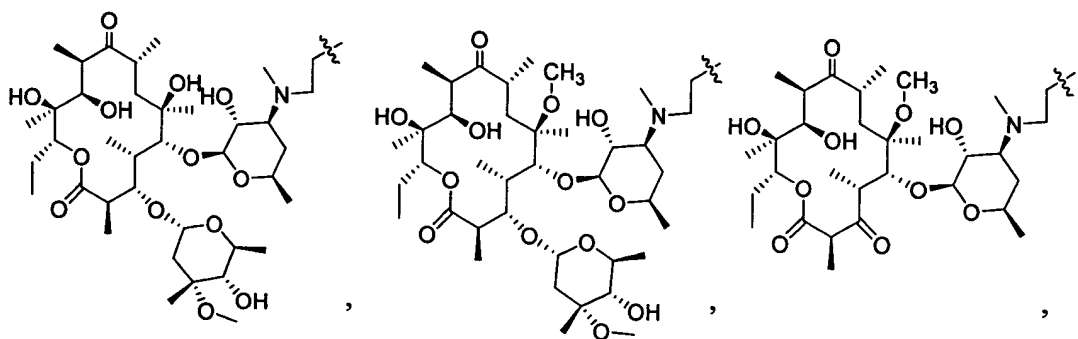
wherein $n = 1, 2, 3$, or 4 .

26. The compound according to claim 1, having the formula:

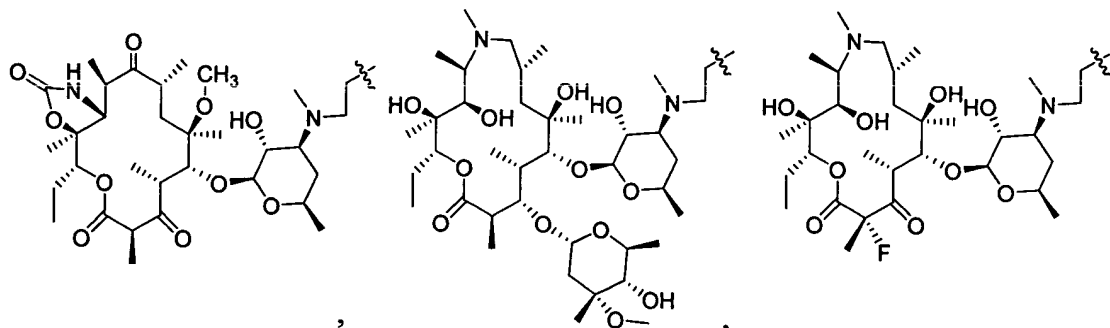


wherein G is as described in claim 1.

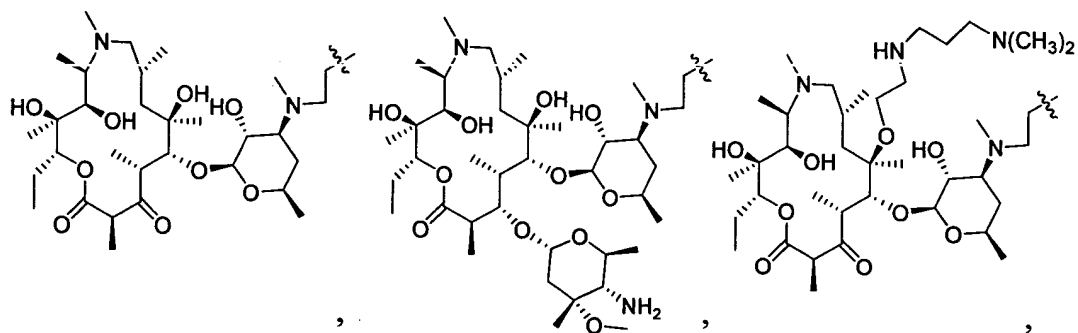
27. The compound according to claim 26, wherein G has the formula selected from the group consisting of:



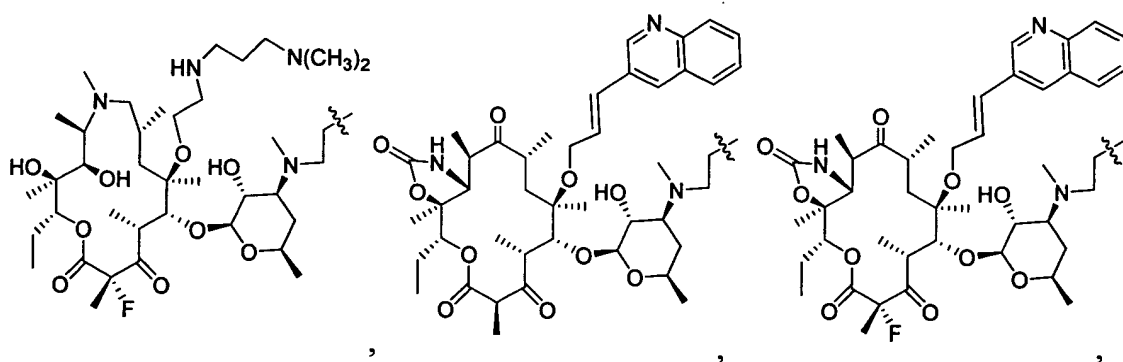
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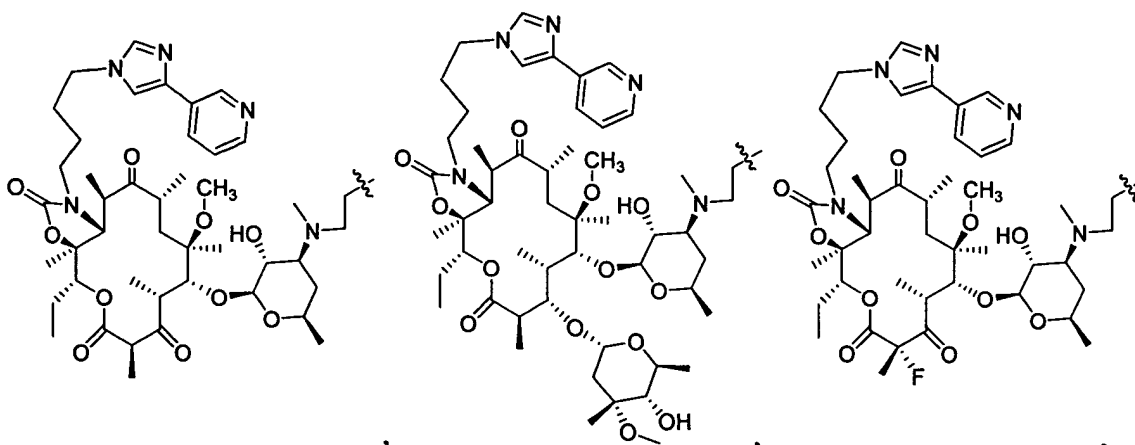
4



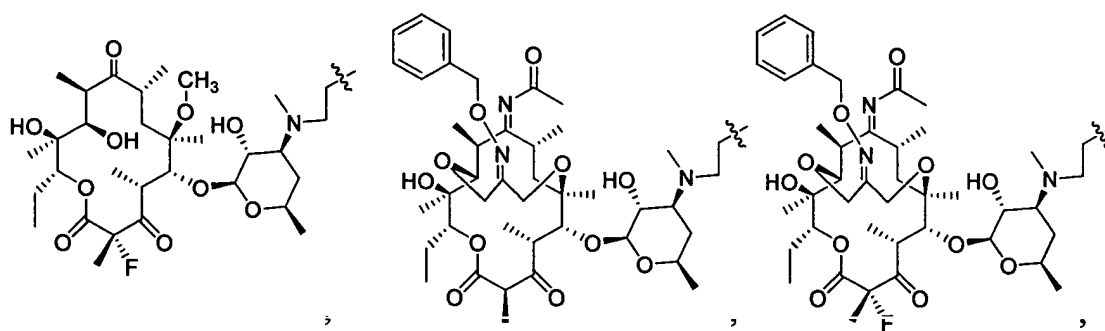
5



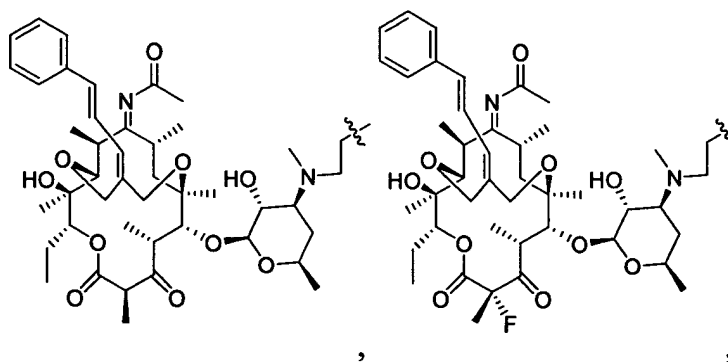
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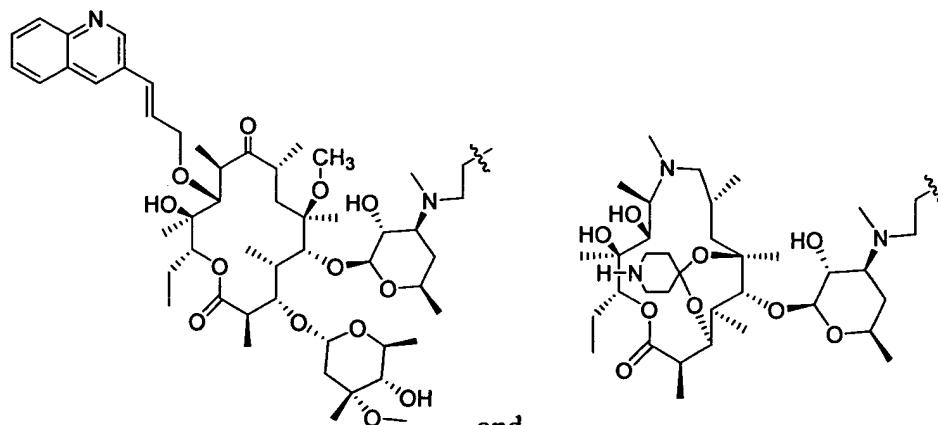
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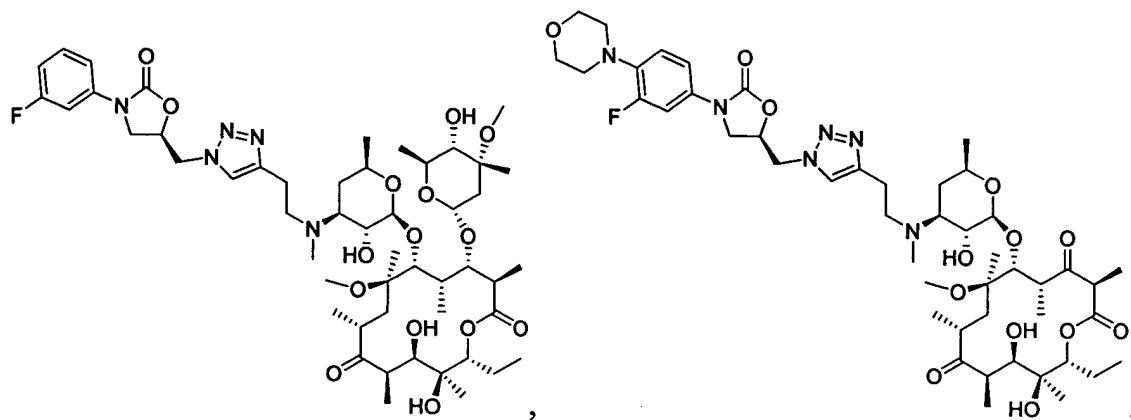
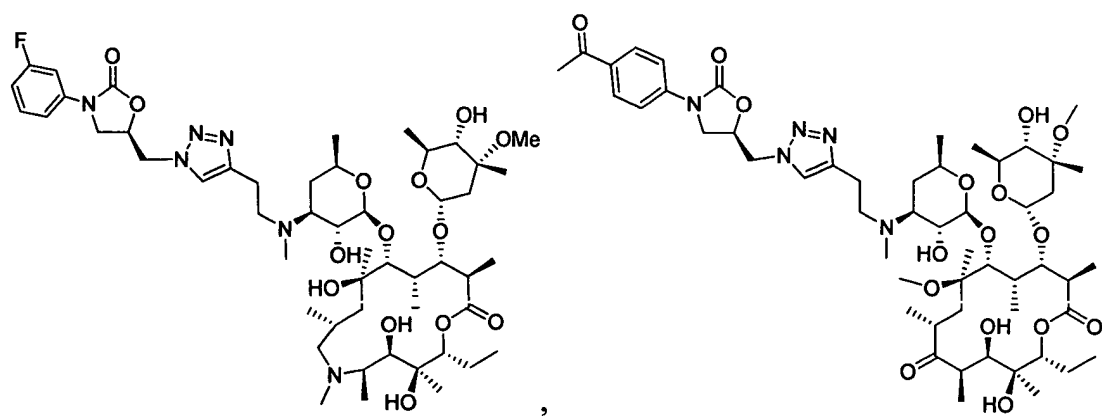
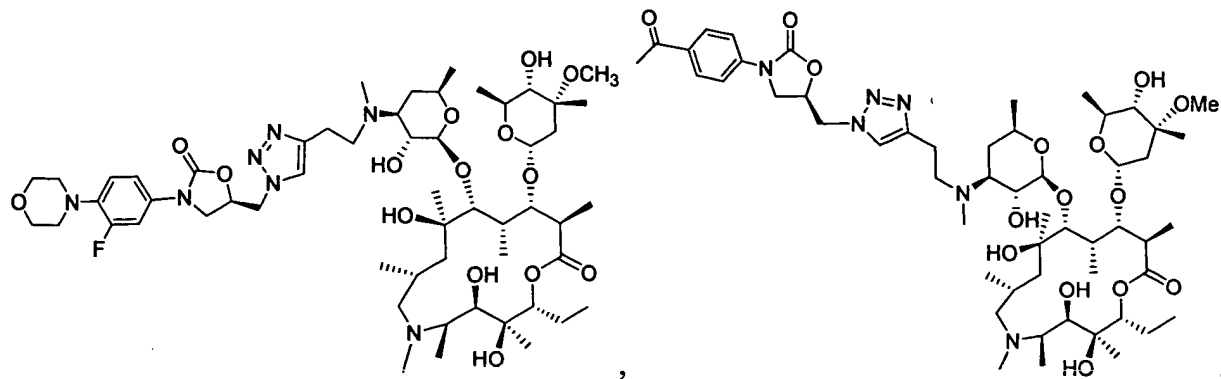
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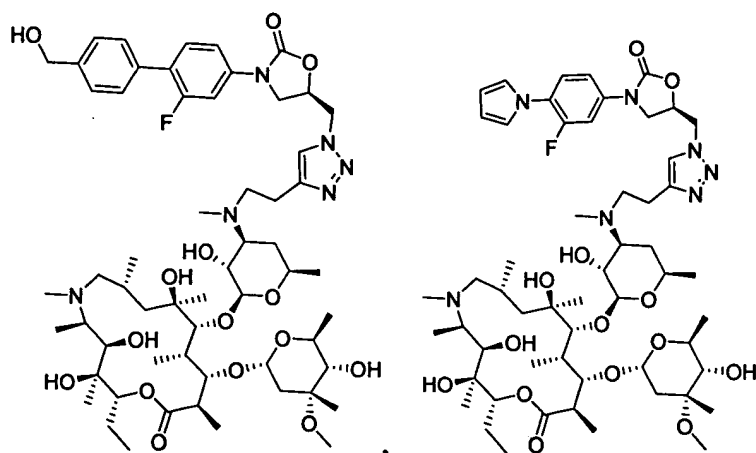


10

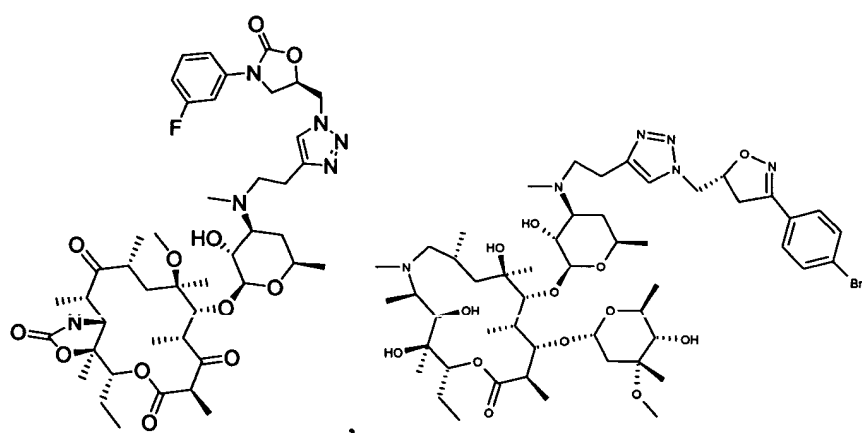
, and

1 28. A compound having the formula selected from the group consisting of:

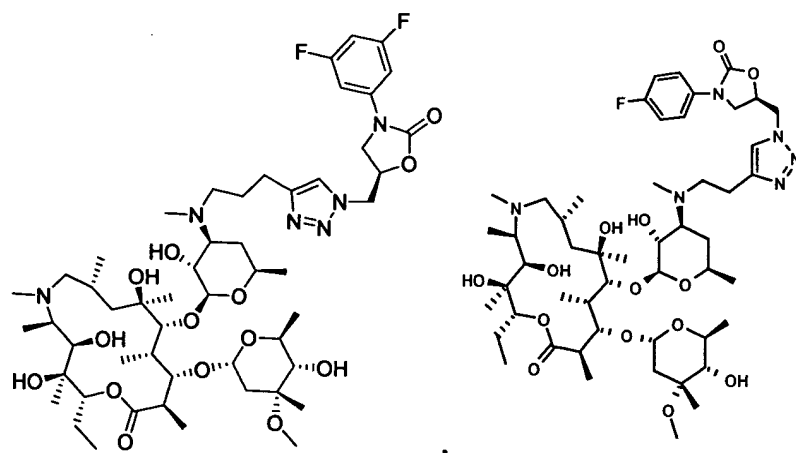




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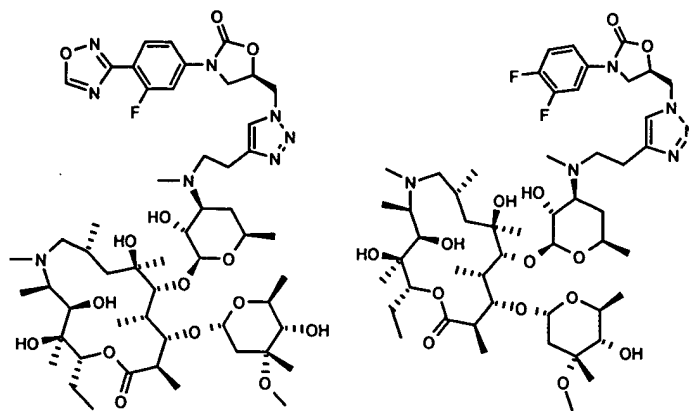


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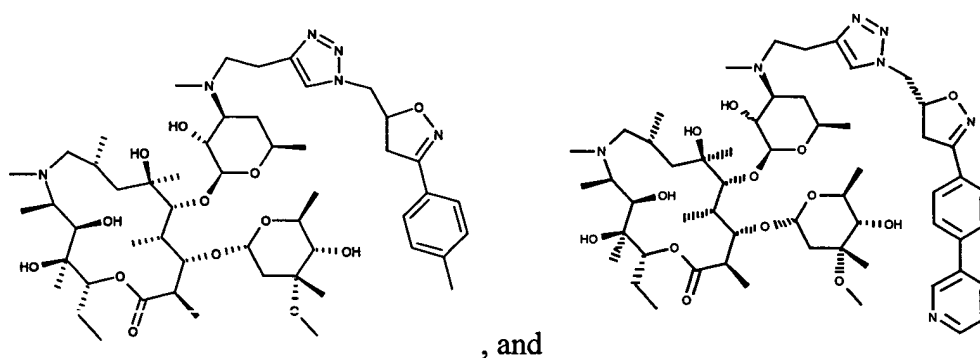


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9



, and

10 or a pharmaceutically acceptable salt, ester, or prodrug thereof.

1 29. A compound having the structure corresponding to any of the structures listed in Table 1,
2 or a pharmaceutically acceptable salt, ester, or prodrug thereof.

1 30. A compound having the structure corresponding to any of the structures listed in Table 2,
2 or a pharmaceutically acceptable salt, ester, or prodrug thereof.

1 31. A pharmaceutical composition comprising a compound according to any one of claims
2 1-30 and a pharmaceutically acceptable carrier.

1 32. A method of treating a microbial infection in a mammal comprising administering to the
2 mammal an effective amount of a compound according to any one of claims 1-30.

1 33. A method of treating a fungal infection in a mammal comprising administering to the
2 mammal an effective amount of a compound according to any one of claims 1-30.

- 1 34. A method of treating a parasitic disease in a mammal comprising administering to the
2 mammal an effective amount of a compound according to any one of claims 1-30.
- 1 35. A method of treating a proliferative disease in a mammal comprising administering to the
2 mammal an effective amount of a compound according to any one of claims 1-30.
- 1 36. A method of treating a viral infection in a mammal comprising administering to the
2 mammal an effective amount of a compound according to any one of claims 1-30.
- 1 37. A method of treating an inflammatory disease in a mammal comprising administering to
2 the mammal an effective amount of a compound according to any one of claims 1-30.
- 1 38. A method of treating a gastrointestinal motility disorder in a mammal comprising
2 administering to the mammal an effective amount of a compound according to any one of claims
3 1-30.
- 1 39. The method according to any one of claims 32-38 wherein the compound is administered
2 orally, parentally, or topically.
- 1 40. A method of synthesizing a compound according to any of claims 1-30.
- 1 41. A medical device containing a compound according to any one of claims 1-30.
- 1 42. The medical device according to claim 41, wherein the device is a stent.